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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,767	02/20/2002	Shinya Soeda	401572	3441

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EXAMINER

PRENTY, MARK V

ART UNIT	PAPER NUMBER
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2822

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DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/077,767

Applicant(s)

SOEDA

Examiner

Prenty

Art Unit

2822



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 24, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 10-15, 17, and 18 is/are allowed.
- 6) ☒ Claim(s) 5-7 and 16 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

This Office Action is in response to the amendment filed February 24, 2003.

Claim 16 is rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the specification does not describe a semiconductor device comprising a signal interconnection layer and first and second metallic shielding layers, wherein one of the metallic shielding layers is a bit line layer in a DRAM region, as recited in dependent claim 16. See the FIG. 12 disclosure and note that bit line layer 126a is a signal interconnection layer between first and second metallic shielding layers formed by the gate electrode layer and the upper capacitor electrode layer 124.

Claims 5 and 7 are rejected under 35 U.S.C. §102 as being anticipated by Prior Art Figs. 6A/14.

With respect to independent claim 5, Prior Art Figs. 6A/14 illustrate a semiconductor device comprising: a semiconductor substrate having at least one DRAM region and one logic region; a signal interconnection layer 129 (or 108a) in said logic region; and a metallic layer 126/126a in said DRAM region and said logic region and located on one side of said signal interconnection layer 129 (or 108a), with respect to said semiconductor substrate, as a shielding layer in said logic region.

Claim 5 is thus rejected under 35 U.S.C. §102 as being anticipated by Prior Art Figs. 6A/14.

With respect to dependent claim 7, Prior Art Figs. 6A/14's metallic layer 126 is a bit line layer in said DRAM region.

Claim 7 is thus rejected under 35 U.S.C. §102 as being anticipated by Prior Art

Figs. 6A/14.

Claims 5 and 6 are rejected under 35 U.S.C. §102 as being anticipated by Prior Art Figs. 6A/14.

With respect to independent claim 5, Prior Art Figs. 6A/14 illustrate a semiconductor device comprising: a semiconductor substrate having at least one DRAM region and one logic region; a signal interconnection layer 126a in said logic region; and a metallic layer 108a in said DRAM region and said logic region and located on one side of said signal interconnection layer 126a, with respect to said semiconductor substrate, as a shielding layer in said logic region.

Claim 5 is thus rejected under 35 U.S.C. §102 as being anticipated by Prior Art Figs. 6A/14.

With respect to dependent claim 6, Prior Art Figs. 6A/14's metallic layer 108a is a gate electrode in said DRAM region.

Claim 6 is thus rejected under 35 U.S.C. §102 as being anticipated by Prior Art Figs. 6A/14.

Claim 8 is objected to as being dependent on a rejected base claim (i.e., claim 8 would be allowable over the prior art of record if claim 8 were amended to further include all the limitations of independent claim 5).

Claim 9 is objected to as being dependent on a rejected base claim (i.e., claim 9 would be allowable over the prior art of record if claim 9 were amended to further include all the limitations of independent claim 5).

Claims 1-4, 10-15, 17 and 18 are allowable over the prior art of record.

The applicant's argument with respect to the rejections of claims 5-7 under 35 U.S.C. §102 in view of Prior Art Figs. 6A/14 is incorrect for at least two reasons.

First, the rejected claims do not recite that the shield layer is continuous.

Furthermore, the applicant's argument that a shield layer must be continuous is inconsistent with the disclosure. See the specification at page 14, lines 17-22.

Applicant's amendment necessitated the new ground of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P. §706.07(a). Applicant is reminded of the extension of time policy set forth in 37 C.F.R. §1.136(a).

Applicant's reply to the final rejection must include cancellation of, or appeal from the rejections of, each rejected claim (i.e., the applicant's reply to the final rejection must include cancellation of, or appeal from the rejections of, claims 5-7 and 16). 37 CFR 1.113.

The applicant should file an amendment under 37 CFR 1.116 cancelling finally rejected claims 5-7 and 16, amending claims 8 and 9 to include all the limitations of independent claim 5, and not adding any claims, so that the application would apparently be in condition for allowance with the allowed claims consisting of claims 1-4, 8-15, 17 and 18.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. §1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Registered practitioners can telephone examiner Prenty at (703) 308-4939. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the application's Serial Number. Technology Center 2800's general telephone number is (703) 308-0956.

Mark Prenty
Mark M. Prenty
Primary Examiner